

REMARKS

The Applicant respectfully requests reconsideration of the present application in view of the above changes to the claims and the following remarks, which are responsive to the Non-Final Office Action mailed January 16, 2009.

I. Status of the Claims

In the Office Action, Claims 2, 5, 6, 11-16 and 22-27 were noted as pending in the application and were rejected. As a result of this response, Claims 2, 5, 6, 11-16 and 22-27 remain pending, new Claims 28 and 29 have been added, and Claims 12, 13, 15, 22 and 23 have been amended in order to further clarify the claimed invention. Support for new Claims 28 and 29 can be found at least on Page 10 of Applicant's specification as filed.

II. Claim Rejections

a. 35 U.S.C. § 112

In the Office Action, Claims 2, 5, 6, 11-16 and 22 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (Office Action, page 2). In particular, independent Claim 22, and Claims 2, 5, 6 and 11 depending therefrom, were rejected because it was "unclear whether, 'the received identifier' is the WWN or another identifier." (*Id.*). In response, Claim 22 has been amended, as shown above, to replace "the received identifier" with "the WWN received from the diskless host computer."

In addition, independent Claim 12, and claims 13-16 depending therefrom, were rejected as indefinite based on the use of the term "likely." (*Id.*) In response, Claim 12 has been amended, as shown above, to remove the term "likely." Finally, independent Claim 12, and claims 13-16 depending therefrom, were further rejected because it was "unclear to which identifier 'the received identifier' refers." (*Id.* at pages 2-3). In response, independent Claim 12 has been further amended, as shown above and as suggested by the Office Action, to clarify that

the received identifier refers to “the received identifier transmitted by the diskless host computer.”

Based on the foregoing, Applicant respectfully asserts that Claims 2, 5, 6, 11-16 and 22 are not indefinite and, therefore, respectfully requests that the rejection of these claims under 35 U.S.C. § 112, second paragraph, be withdrawn.

b. 35 U.S.C. § 103(a)

In the Office Action, Claims 2, 5, 12-15, 22, 24, 26 and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,834,299 issued to Hamilton, II et al. (“*Hamilton*”) in view of U.S. Publication 2001/0047460 issued to Kobayashi et al. (“*Kobayashi*”) in further view of U.S. Patent No. 7,082,462 issued to Matsunami et al. (“*Matsunami*”). In addition, Claims 6 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hamilton* in view of *Kobayashi* and *Matsunami* and further in view of U.S. Patent No. 6,810,478 issued to Anand et al. (“*Anand*”). Finally, Claims 11 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hamilton* in view of *Kobayashi* and *Matsunami* and further in view of U.S. Patent No. 6,343,287 issued to Kumar et al. (“*Kumar*”).

c. Independent Claims 12, 22 and 23

As noted above, independent Claims 12, 22 and 23 were each rejected under 35 U.S.C. § 103(a) as unpatentable over *Hamilton* in view of *Kobayashi* and further in view of *Matsunami*. Applicant respectfully asserts, however, that neither *Hamilton* nor *Kobayashi*, nor *Matsunami*, whether considered alone or in combination, teaches, suggests or renders obvious each of the recitations of Applicant’s independent Claim 12, 22 or 23.

In particular, Applicant respectfully asserts that none of the references cited teach, suggest or render obvious accessing, or a control station configured to access, a database comprising a correspondence between an identifier (e.g., a WWN) of each of a plurality of diskless host computers and a configuration associated with the corresponding diskless host computer in order to look up a configuration corresponding to an identifier (e.g., a WWN) received from a diskless host computer, wherein the configuration identifies the operating system

associated with the diskless host computer, as recited, albeit in somewhat different language, in each of Applicant's independent Claims 12, 22 and 23. In addition, Applicant respectfully asserts that none of the references cited teach, suggest, or render obvious a storage system "configured to copy the operating system identified to the storage device, to which the switch provides the diskless host computer with access, from another device of the storage system, said another device configured to maintain an unaltered copy of the operating system[,]" as recited in Applicant's independent Claim 12, as amended. Similarly, none of the references teach, suggest or render obvious "copying the operating system identified in the configuration to a storage device from another storage device, said another storage device configured to maintain an unaltered copy of the operating system[,]" wherein the diskless host computer is provided access to the storage device to which the operating system was copied for booting the operating system, as recited in Applicant's independent Claims 22 and 23, as amended.

With regard to the former recitation (i.e., accessing a database), the Office Action appears to rely on *Matsunami* for this teaching. (Office Action, pages 4-5). According to *Matsunami*, each Personal Computer (PC) 2 of the Computer System disclosed has a "Fibre Channel Interface (Fibre Channel I/F) 22 to connect the PC 2 to the Fibre Channel[.]" (*Matsunami*, col. 3, lines 37-61). "The Fibre Channel I/F 22 is composed of ... Memory Unit 221 ... [which contains] the Boot-up Control Program 2211 ... and World Wide Name (WWN) 2212 which is an unique name to identify the Fibre Channel I/F 22." (*Id.* at col. 3, line 64 – col. 4, line 11).

The Computer System of *Matsunami* further includes a Storage Subsystem 1 "equipped with ... Logical Units (LUs) 170 through 176 storing programs and data utilized by PC 2." (*Id.* at col. 4, lines 19-27). In particular, the "OS program which PC 2 uses is stored in a specific LU which is allocated for each PC 2." (*Id.* at col. 8, lines 16-18). According to *Matsunami*, "[e]ach of the LUs 170 through 176 is given a specific number called Logical Unit Number (LUN) to be uniquely identified. Usually the Computer including PC searches a Storage Subsystem for available LUs during the OS Boot-up ... [and] accessible LUs are allocated for each PC 2." (*Id.* at col. 4, lines 49-59).

The Storage Subsystem 1 of *Matsunami* further includes a Memory Unit that “stores LU Definition Program 131 [and] LUN Management Table 132[.]” (*Id.* at col. 4, lines 20-39). According to *Matsunami*, the “LUN Management Table 132 contains Computer Identifier 1321 ... Virtual LUN 1324, [and] Internal LUN 1325 ... corresponding to said Computer Identifier 1321 ... [wherein t]he Computer Identifier 1321 ... is defined by a combination of Port Name based on the WWN information 2212 of the Fibre Channel I/F 22 of the PC 2 and S_ID (Source-ID) which is fixed in an initialization procedure of the Fibre Channel.” (*Id.* at col. 6-18).

As described above, *Matsunami* discloses a table (i.e., the LUN Management Table) that includes a correspondence between a PC’s unique identifier (i.e., the Computer Identifier) and the number associated with the logical unit allocated to that PC (i.e., the internal and logical LUN), wherein the logical unit stores the operating system associated with the PC. In other words, the table of *Matsunami* defines *where the operating system associated with the PC is stored*; the table does not define *a configuration* associated with the PC, wherein the configuration actually identifies the operating system associated with the PC. Put differently, the LUN Management Table does not define the operating system (e.g., SOLARIS 8, LINUX, AIX, etc.) associated with the PC; rather, the LUN Management Table defines where the operating system is stored. Accordingly, Applicant respectfully asserts that *Matsunami* does not teach or suggest “accessing a database comprising a correspondence between an identifier [e.g., a WWN] of each of a plurality of diskless host computers and *a configuration associated with the corresponding diskless host computer* in order to look up a configuration corresponding to the received identifier ... [e.g., the obtained WWN], said configuration *identifying the operating system associated with the diskless host computer*[.]” as recited, albeit in somewhat different language, in Applicant’s independent Claims 12, 22 and 23, as amended. (Applicant’s Claim 12, *emphasis added*).

Hamilton and *Kobayashi* likewise fail to teach or suggest “accessing a database comprising a correspondence between an identifier [e.g., a WWN] of each of a plurality of diskless host computers and a configuration associated with the corresponding diskless host computer in order to look up a configuration corresponding to the received identifier ... [e.g., the obtained WWN], said configuration identifying the operating system associated with the diskless

host computer[.]” In fact the Office Action concedes that *Hamilton* does not teach or suggest this recitation (Office Action, page 4) and relies upon *Kobayashi* for different purposes. In particular, the Office Action relies upon *Kobayashi* as disclosing “a switch coupled to each diskless host computer ... and a control station computer monitoring for receipt of an identifier ...” (*Id.*).

With regard to the latter recitation (i.e., copying the identified operating system), the Office Action appears to rely on *Hamilton* for this teaching. (Office Action, page 8). In particular, the Office Action relies on the Figure 5 and the following portion of *Hamilton* as disclosing copying the operating system identified to the storage device, to which the switch provides the diskless host computer with access, from another storage device:

A method and system are provided for the development and maintenance of a single configuration file for a storage area network combined with an "intelligent" script which places server configuration files into the appropriate directories for servers which are part of the storage area network. On a server by server basis, each server is configured in accordance with the particular operating system the server itself is using. Once this is accomplished, each server added or removed from the storage area network will be processed in a similar way without the need for reconfiguration of the storage area network as a whole.

(*Hamilton*, Abstract).

Applicant respectfully asserts that nothing in Figure 5, nor in the above recitation of *Hamilton*, nor in any other portion of *Hamilton* teaches, suggests or renders obvious copying the operating system identified as being associated with the diskless host computer from a first device, which is configured to maintain an unaltered copy of the operating system, to a second device, wherein it is the second device from which the diskless host computer accesses the operating system.

As described in Applicant's specification,

[T]his step is performed to preserve the integrity of the original copy of the configuration data. In other words, the configurations on devices 22, 24, 26, 28 and 30 are preserved as so-called “gold” copies, and the copies on devices 22', 24', 26', 28', and 30' become working copies. The working copies can then be altered to suit host requirements, such as name and IP address.

(Applicant's Specification, page 10).

Accordingly, Applicant respectfully asserts that *Hamilton* does not teach or suggest a storage system "configured to copy the operating system identified to the storage device, to which the switch provides the diskless host computer with access, from another device of the storage system, said another device configured to maintain an unaltered copy of the operating system[.]" as recited in Applicant's independent Claim 12, as amended. Similarly, *Hamilton* does not teach, suggest or render obvious "copying the operating system identified in the configuration to a storage device from another storage device, said another storage device configured to maintain an unaltered copy of the operating system[.]" wherein the diskless host computer is provided access to the storage device to which the operating system was copied for booting the operating system, as recited in Applicant's independent Claims 22 and 23, as amended. Applicant further respectfully asserts that neither *Kobayashi* nor *Matsunami* teaches, suggests or renders obvious this recitation of Applicant's independent Claims 12, 22 and 23, as amended.

For at least the reasons discussed above, Applicant respectfully submits that independent Claims 12, 23 and 23 are patentable over *Hamilton* in view of *Kobayashi* and further in view of *Matsunami*. Applicant, therefore, respectfully requests that the rejection of independent Claims 12, 22 and 23 be withdrawn.

d. Dependent Claims 2, 5, 6, 11, 13-16 and 24-29

Claims 13-16; 2, 5, 6, 11 and 28; and 24-27 and 29 depend, respectively, from independent Claims 12, 22 and 23 and include all of the recitations of their base claims and any intervening claims plus their additional recitations that further distinguish the art applied in the rejection. For example, in addition to the recitations of Claims 12, 22 and 23, respectively, dependent Claims 13, 28 and 29 further recite, albeit in somewhat different language, "wherein the operating system copied to the storage device from another device ... is altered based on one or more requirements associated with the diskless host computer" (Applicant's Claim 13), which is further not taught or suggested by any of the references cited in the Office Action.

Thus, for at least the reasons set forth above with respect to independent Claims 12, 22 and 23, it is respectfully submitted that dependent Claims 2, 5, 6, 11, 13-16 and 24-29 are further patentable over the references cited in the Office Action as such dependent claims now depend from allowable base claims

III. Conclusion

In light of the remarks above, Applicant respectfully submits that the application is in condition for allowance and respectfully requests that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicant's undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 14-0629.

Respectfully submitted,

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